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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,255	09/23/2006	Pieter Van Lieshout	US040018US2	1876

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EXAMINER	
BOYD, JONATHAN A	

ART UNIT	PAPER NUMBER
2629	

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02/23/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,255	LIESHOUT ET AL.	
	Examiner	Art Unit	
	JONATHAN BOYD	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-12,15-23 and 25-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-12,15-23 and 25-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/15/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed December 9th 2009 have been fully considered but they are not persuasive. The Examiner respectfully disagrees with Applicant's assertion that Fishkin does not teach "modifying the predetermined relationship between the bending force and the visual display." A predetermined relationship as currently claimed can be read in view of the broadest reasonable interpretation to entail when the display is a flat neutral (un-bended) position. Therefore the predetermined relationship between the bending force and the visual display would be when the bending force is zero and the visual display being unlocked or not protected by a password. This predetermined relationship is modified when a bending force is applied to the display, the relationship being changed to that when the display is bended, a password locks the display.

For further insight, and more to what is believed the Applicant is trying to get at (but not yet claiming specifically enough yet), look to Fig. 7 and Colum 10, lines 5-17 where the display is resized based on the amount of deformation to the display. This would include different degrees of an action being carried out, since the display could be resized to multiple different sizes based on how much force is placed on the display.

Further the Examiner respectfully disagrees with Applicant's assertion that Fishkin does not teach a control device. Inherently a control device is involved to carry out the commands as shown in Fishkin. Without a control device nothing would happen in response to bending the display, therefore a control device is implicitly involved so as to allow the device to operate.

2. Applicant's arguments, with respect to the claim objections and rejection under 35 U.S.C. § 112 have been fully considered and are persuasive. These rejections and objections have been withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1, 4-8, 12, 15-19 and 23 rejected under 35 U.S.C. 102(b) as being anticipated by Fishkin et al (6,160,540) (herein "Fishkin").

In regards to claim 1, Fishkin teaches a method for controlling a visual display on a display panel by applying a bending force to the display panel (*See; Column 9, lines 50-61 and Fig. 5*), detecting the bending force and modifying the visual display in accordance with a predetermined relationship between the bending force and the visual display (*See; Column 9, lines 50-61 where the display is password protected in response to a display being deformed*); wherein the display panel includes a control device for modifying the predetermined relationship between the bending force and the visual display, and the method further comprises modifying the predetermined relationship between the bending force and the visual display (See; *Column 9, lines 50-61 where a control device is inherently taught to modify the display in response to the*

display bending). (*Also, for a different interpretation of claim 1, see; Fig. 7 and Colum 10, lines 5-17 where the display is resized based on the amount of deformation to the display. This would include different degrees of an action being carried out, since the display could be resized to multiple different sizes based on how much force is placed on the display).*

In regards to claim 4 and 15, Fishkin teaches receiving by the control device, an input for modifying the visual display according to a predetermined relationship between the input applied to the control device and the visual display, and the method further comprises modifying the predetermined relationship between the input applied to the control device and the visual display in accordance with the bending force applied to the display panel (See; *Column 9, lines 50-61 where a control device is inherently taught to modify the display in response to the display bending with the predetermined relationship of password protecting the document in response to a fold)*.

In regards to claim 5 and 16, Fishkin teaches generating a torque on the display panel through application of the bending force; detecting the torque; and modifying, during the modifying the visual display step, the visual display in accordance with the predetermined relationship between the detected torque and the visual display (*See; Figures 3-10 which measure either the rotational or planar components of the bending display to find torque*).

In regards to claim 6 and 17, Fishkin teaches wherein the torque includes a twisting torque component, the detecting the torque step detecting the twisting torque component and the modifying the visual display step includes modifying the visual display in accordance with a predetermined relationship between the detected twisting torque component and the visual display (*See; Column 10, lines 38-49 and Fig. 10*).

In regards to claim 7 and 18, Fishkin teaches wherein the torque includes a bending torque component, the detecting the torque step includes detecting the bending torque component and the modifying the visual display step includes modifying the visual display in accordance with a predetermined relationship between the detected bending torque component and the visual display (*See; Column 9, lines 50-61 and Fig. 5 and 6*).

In regards to claim 8 and 19, Fishkin teaches wherein the torque includes a planar torque component the detecting the torque step includes detecting the planar torque component and the modifying the visual display step includes modifying the visual display in accordance with a predetermined relationship between the detected planar torque component and the visual display (*See; Column 9, lines 27-49 and Figure 4 where a user applies a planar force to move an object and where a user minimizes an object by squeezing the display and also Figure 7 where a user scales an image by stretching the display*).

In regards to claim 12, Fishkin teaches an apparatus for controlling a visual display on a display panel by applying a bending force to the display panel (*See; Column 9, lines 50-61 and Fig. 5*), the apparatus comprising: the display panel; and a detector operatively attached to the display panel for detecting the bending force applied to the display panel (*The detectors are inherent since there has to be something detecting the deformations in the display*); and controller operatively connected to the detector and the display panel for: receiving the detected bending force from the detector display (See; *Column 9, lines 50-61 where a controller device is inherently taught to modify the display in response to the display bending, therefore connected between the detector and display)*, and modifying the visual, display in accordance with a predetermined relationship between the detected bending force and the visual display, and wherein the display panel includes a control device for modifying the predetermined relationship between the bending force and the visual display (*See; Column 9, lines 50-61 where the display is password protected in response to a display being deformed*). (*Also, for a different interpretation of claim 1, see; Fig. 7 and Colum 10, lines 5-17 where the display is resized based on the amount of deformation to the display. This would include different degrees of an action being carried out, since the display could be resized to multiple different sizes based on how much force is placed on the display).*

In regards to claim 23, Fishkin teaches a portable electronic device comprising: a display panel; a processor for generating a visual display on a display panel (*See; Column 5, lines 47-48 for a processor*); and an apparatus for controlling the visual

display on the display panel by applying a bending force to the display panel; the apparatus for controlling the visual display comprising the display panel and a detector (*The detectors are inherent since there has to be something detecting the deformations in the display*) operatively attached to the display panel for detecting the bending force applied to the display panel (*See; Column 9, lines 50-61 and Fig. 5*); and controller operatively connected to the detector and the display panel for: receiving the detected bending force from the detector display (See; *Column 9, lines 50-61 where a controller device is inherently taught to modify the display in response to the display bending, therefore connected between the detector and display)*, and modifying the visual, display in accordance with a predetermined relationship between the detected bending force and the visual display, and wherein the display panel includes a control device for modifying the predetermined relationship between the bending force and the visual display (*See; Column 9, lines 50-61 where the display is password protected in response to a display being deformed*). (*Also, for a different interpretation of claim 1, see; Fig. 7 and Colum 10, lines 5-17 where the display is resized based on the amount of deformation to the display. This would include different degrees of an action being carried out, since the display could be resized to multiple different sizes based on how much force is placed on the display).*

In regards to claim 28, Fishkin teaches the control device is arranged for receiving an input for modifying the visual display according to a predetermined relationship between the input applied to the control device and the visual display (*See;*

Column 9, lines 50-61 where the display is password protected in response to a display being deformed), and the controller modifies the predetermined relationship between the input applied to the control device and the visual display in accordance with the bending force applied to the display panel (See; *Column 9, lines 50-61 where a controller device is inherently taught to modify the display in response to the display bending)*.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 9-11 and 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Fishkin et al (6,160,540) (herein “Fishkin”) in view of Fujieda et al (2002/0070910) (herein “Fujieda”).

In regards to claim 9 and 20, Fujieda teaches wherein the display panel includes a housing and a stowable display screen which may be rolled up into and stowed within a housing, with the housing extending along and attached to an edge of the stowable display screen, and the method further comprises applying the bending force to the stowable display screen (*See; Figures 1-3 for a flexible display that rolls into a housing*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fishkin's housing with a stowable housing with roller as taught by Fujieda to decrease the surface area of the device when not in use.

In regards to claim 10 and 21, Fujieda teaches wherein the display panel includes a roller attached to the stowable display screen for receiving the stowable display screen as it is rolled up into the housing (*See; Fig. 3, element 150*), and the method further comprises: detecting a reaction on the roller resulting from application of the bending force to the display panel; and modifying the visual display in accordance with a predetermined relationship between the detected reaction on the roller and the visual display (*It is obvious to place force sensors on the roller since it is the only portion rigid enough to place sensors. Also see p[0016] where the image is only displayed on the area extended outside of the housing*).

In regards to claim 11 and 22, Fujieda teaches wherein the reaction on the roller, resulting from application of the bending force to the display panel, is a torque on the roller (*This is an obvious design choice, to sense the torque at the roller, since it is the*

only place rigid enough to place sensors).

8. Claims 25-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Fishkin et al (6,160,540) (herein "Fishkin") in view of Sawyer (2004/0052037).

In regards to claim 25, Sawyer teaches wherein: the visual display includes a movable cursor; and the controller modifies the visual display by moving the cursor in accordance with a predetermined relationship between the detected bending force and the visual display (*See; p[0038] where a cursor is moved on a flexible display*).

Therefore it would have been obvious to one of ordinary skill at the time of the invention to modify Fishkin's flexible display with a known graphical user interface as taught by Sawyer to allow the user to navigate the display.

In regards to claim 26, Sawyer inherently teaches wherein: the visual display is scrollable; and the controller modifies the visual display by scrolling the visual display in accordance with a predetermined relationship between the detected bending force and the visual display (*See; p[0038] where a cursor control device is claimed. Inherently cursor control devices can scroll through a display*).

In regards to claim 27, Sawyer inherently teaches wherein: the visual display includes a page up /down mode; and the controller modifies the visual display by paging up/down in accordance with a predetermined relationship between the detected bending force and the visual display (*See; p[0038] for a keyboard. Inherently keyboards include*

page up / page down keys).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN BOYD whose telephone number is (571)270-7503. The examiner can normally be reached on Mon - Fri 6:00 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. B./
Examiner, Art Unit 2629

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629